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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/559,706

12/07/2005

Daniel Dermark

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1854

23117 7590 02/22/2008
NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

BEHM, HARRY RAYMOND

ART UNIT

PAPER NUMBER

2838

MAIL DATE

DELIVERY MODE

02/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/559,706	Applicant(s) DERMARK, DANIEL	
	Examiner HARRY BEHM	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☒ Claim(s) 3 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/07/05 and 12/26/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 12/07/05 incorrectly listed Henze as 4,953,68 instead of 4,953,068. The reference was considered and has been listed on the 892 of this office action.

Drawings

The drawings were received on 12/26/07. These drawings are accepted.

Claim Objections

Claims 1 and 3 are objected to because of the following informalities: on line 12 of Claim 1, "the primary side" should be "the secondary side". Appropriate correction is required.

Claims 4 and 6 are objected to for the following informality: on line 15 of Claim 4, "pair (of" should be "pair of". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Henze (US 4,953,068).

With respect to Claim 1, Henze discloses a method for use in a DC/DC-rectifier, said rectifier comprising a transformer (Fig. 1 transformer) and a bridge (Fig. 1 Q1-Q4) on the primary side (Fig. 1 PRI) of the transformer, the primary side bridge comprising a first pair of switches (Fig. 1 Q1,Q4)) and a second pair (Fig. 1 Q2,Q3) of switches, and, on the secondary side of the transformer, a secondary side bridge (Fig. 1 Q5-Q8) comprising a first pair of switches (Fig. 1 Q6,Q7) and a second pair (Fig. 1 Q5,Q8) of switches, said method comprising:

linking on/off-switching of the first pair (Fig. 1 Q1,Q4) of switches on the primary side to the on/off-switching of the first pair (Fig. 1 Q6,Q7) of switches on the secondary side, by switching off the first pair (Fig. 2 Q6,Q7 off at time t_h to t_a) on the secondary side when the first pair on the primary side is switched on (Fig. 2 Q1,Q4 on at time t_h to t_a), and, when the first pair on the primary side is switched off (Fig. 2 Q1,Q4 off at time t_c to t_f), switching on the first pair on the secondary side (Fig. 2 Q6,Q7 on at time t_c to t_f), and

linking on/off-switching of the second pair of switches on the primary side to on/off-switching of the second pair of switches on the secondary side by switching off (Fig. 2 Q5,Q8 off at time t_d to t_e), the second pair on the secondary side when the second pair on the primary side is switched on (Fig. 2 Q2,Q3 on at time t_d to t_e), and when the second pair on the primary side is switched off (Fig. 2 Q2,Q3 off at time t_g to t_b), switching on the second pair (Fig. 2 Q5,Q8 on at time t_g to t_b), on the secondary side,

wherein the first and second pairs of switches on the primary side are turned off [first pair Q1,Q4 turned off from t_c to t_f , second pair Q2,Q3 turned off from t_g to t_b] for longer periods [t_c to t_f longer than t_h to t_a , likewise t_g to t_b longer than t_d to t_e] of time than they are switched on [first pair Q1,Q4 turned on from t_h to t_a , second pair Q2,Q3 turned on from t_d to t_e].

With respect to Claim 4, Henze discloses a method. See claim 1 for additional details.

Allowable Subject Matter

Claims 3 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if the objections listed above are overcome and if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or suggest, in combination with the limitations of the base claim and any intervening claims, primarily, wherein the control voltage pulse

train which is applied to the pair of switches on the secondary side is the inverse of the control voltage pulse train applied to the pair of switches on the primary side to which it is linked.

The aforementioned limitations in combination with all remaining limitations of the respective claims are believed to render the aforementioned indicated claim and any dependent claims thereof patentable over the art of record.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pascu (US 6,424,548) and DeDoncker (US 5,027,264) discloses switching the secondary pair on with the primary pair on, and off with the primary pair off. Zhu (US 6,452,815) discloses turning the secondary pair on when the primary pair is off, but the primary pair is not on when the secondary pair is off. Zhu (US 6,937,483) discloses turning the primary pair on longer than the primary pair is off. Yan (US 7,099,161) discloses delaying the primary pair switching.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HARRY BEHM whose telephone number is (571)272-8929. The examiner can normally be reached on 7:00 am - 3:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm E. Ullah can be reached on (571) 272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Harry Behm/
Examiner, Art Unit 2838

/Jeffrey L. Sterrett/
Primary Examiner, Art Unit 2838